



Northeast Fisheries Science Center Reference Document 23-12

# North Atlantic Right Whale Passive Acoustic Detections Report: July-December 2022

December 2023



Northeast Fisheries Science Center Reference Document 23-12

# North Atlantic Right Whale Passive Acoustic Detections Report: July-December 2022

Lindsey Transue, Genevieve Davis, Sofie Van Parijs

*NOAA National Marine Fisheries Service, Northeast Fisheries Science Center, 166 Water Street,  
Woods Hole, MA 02543*

**US DEPARTMENT OF COMMERCE**  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
Northeast Fisheries Science Center  
Woods Hole, Massachusetts

December 2023

## **Northeast Fisheries Science Center (NEFSC)**

### **Reference Documents**

**This series is a secondary scientific series** designed to assure the long-term documentation of and to enable the timely transmission of research results by Center and/or non-Center researchers, where such results bear upon the research mission of the Center (see the outside back cover for the mission statement). These documents receive internal scientific review, and most receive copy editing. The National Marine Fisheries Service does not endorse any proprietary material, process, or product mentioned in these documents.

If you do not have internet access, you may obtain a paper copy of a document by contacting the senior Center author of the desired document. Refer to the title page of the document for the senior Center author's name and mailing address. If there is no Center author, or if there is corporate authorship, contact the Center's Woods Hole Laboratory Library (166 Water St., Woods Hole, MA 02543-1026).

**Information Quality Act Compliance:** In accordance with section 515 of Public Law 106-554, the NEFSC completed both technical and policy reviews for this report. These pre-dissemination reviews are on file at the NEFSC Editorial Office.

This document may be cited as:

Transue L, Davis G, Van Parijs S. 2023. North Atlantic right whale Passive Acoustic Detections Report: July-December 2022. US Dept Commer Northeast Fish Sci Cent Ref Doc. 23-12; 2 p.

# NOAA Northeast Fisheries Science Center

## NARW Passive Acoustic Detections Report: July - December 2022

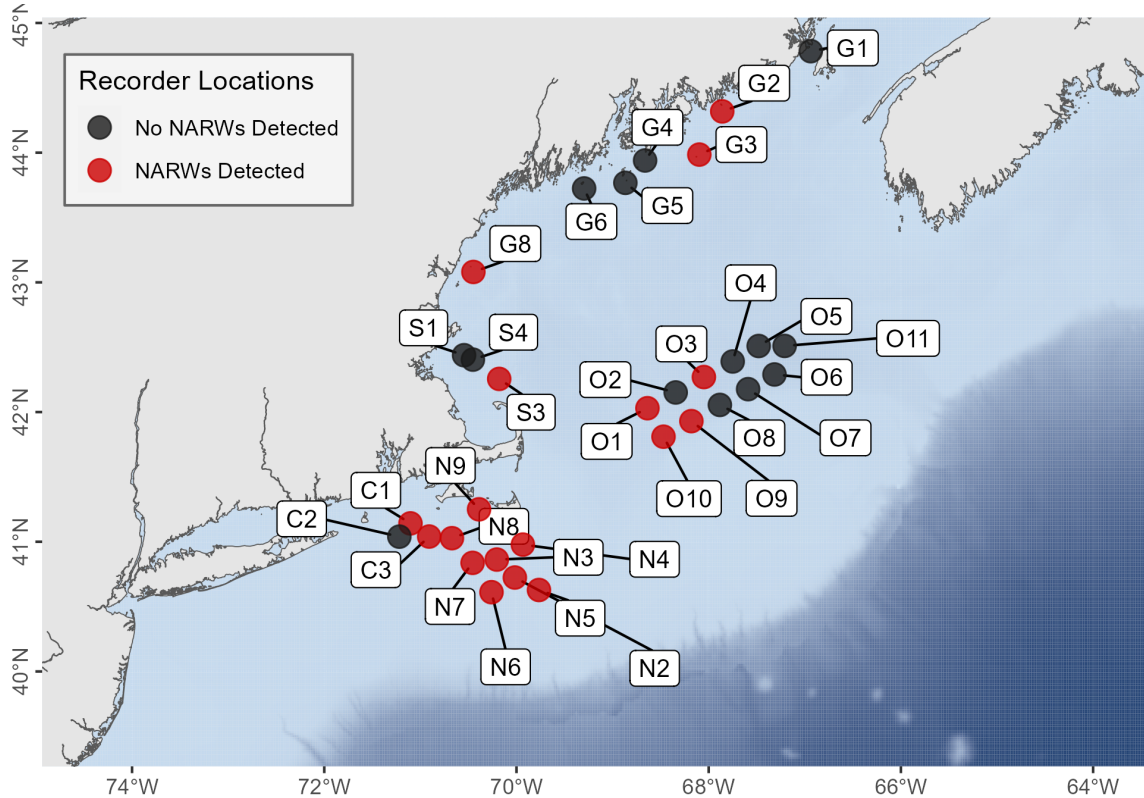


Figure 1: Map of acoustic recorder locations

Data from all recorders were processed with an automated detector, the LFDSCS <sup>1</sup>. Potential detections of North Atlantic right whale (NARW) upcalls were manually verified. Right whales are considered present at a site if three true upcall detections are found in one day. These results indicate minimum right whale presence. A specific date range may contain few or no detections, this does not mean right whales were not present. Passive acoustic monitoring can only determine presence of vocally-active individuals calling within detection range of a recorder. Silent animals, or those calling beyond the range of the recorders, are not represented.

<sup>1</sup>Baumgartner & Mussoline. 2011. "A generalized baleen whale call detection and classification system." *The Journal of the Acoustical Society of America* 129 (5): 2889–2902. <https://doi.org/10.1121/1.3562166>.

Table 1: Table summarizing number of days with NARW presence/number of total recording days for the given month. Recording dates represent the full deployment; the following analysis months are a subset of the full deployment.

Map ID	Site Name	Recording Dates	07-2022	08-2022	09-2022	10-2022	11-2022	12-2022
G1	Lubec	02/13/22 - 07/07/22	0/7	-/-	-/-	-/-	-/-	-/-
G2	Petit Manan	04/13/22 - 03/29/23	0/31	0/24	2/24	0/31	1/30	0/31
G3	MDR	09/07/22 - 02/01/23	-/-	-/-	0/24	0/31	1/30	1/31
G4	Seal Island	08/23/22 - 02/27/23	-/-	0/9	0/30	0/31	0/30	0/31
G5	Matinicus	08/23/22 - 02/27/23	-/-	0/9	0/30	0/31	0/30	0/25
G6	Monhegan	03/27/22 - 02/27/23	0/31	0/12	0/30	0/31	0/30	0/21
G8	York	04/12/22 - 03/31/23	0/31	0/31	0/3	0/21	0/30	1/31
S1	SB01	06/13/22 - 12/21/22	0/31	0/26	-/-	0/15	0/30	0/21
S3	SB03	08/25/22 - 03/29/23	-/-	0/6	3/30	1/30	-/-	1/11
S4	SB04	03/18/22 - 07/07/22	0/7	-/-	-/-	-/-	-/-	-/-
O1	USTR01	05/20/22 - 04/19/23	0/31	0/31	0/30	0/31	1/30	1/31
O2	USTR02	11/11/22 - 04/19/23	-/-	-/-	-/-	-/-	0/20	0/31
O3	USTR03	05/19/22 - 04/19/23	0/31	0/31	0/30	0/31	1/30	3/31
O4	USTR04	05/19/22 - 10/29/22	0/31	0/31	0/30	0/29	-/-	-/-
O5	USTR05	05/19/22 - 04/19/23	0/31	0/31	0/30	0/31	0/27	0/31
O6	USTR06	05/19/22 - 04/20/23	0/31	0/31	0/30	0/31	0/21	0/31
O7	USTR07	05/20/22 - 04/20/23	0/31	0/31	0/30	0/31	0/26	0/31
O8	USTR08	05/20/22 - 04/20/23	0/31	0/31	0/30	0/31	0/25	0/31
O9	USTR09	05/20/22 - 04/20/23	0/31	0/31	0/29	0/31	0/30	2/31
O10	USTR10	05/20/22 - 01/25/23	0/31	0/31	0/30	0/31	1/30	0/31
O11	USTR11	05/19/22 - 11/26/22	0/31	0/31	0/30	0/31	0/26	-/-
C1	COX01	05/19/22 - 02/02/23	0/31	0/31	0/30	0/9	3/28	5/31
C2	COX02	05/19/22 - 11/03/22	0/31	0/31	0/30	0/18	-/-	-/-
C3	COX03	11/03/22 - 02/02/23	-/-	-/-	-/-	-/-	4/28	8/31
N2	NS02	05/30/22 - 04/13/23	5/31	4/31	3/30	2/31	17/30	27/31
N3	NS03	11/09/22 - 04/14/23	-/-	-/-	-/-	-/-	8/22	17/31
N4	NS04	05/30/22 - 11/09/22	7/31	11/31	19/30	10/31	3/9	-/-
N5	NS05	05/30/22 - 04/13/23	0/31	5/31	2/30	3/31	3/30	19/31
N6	NS06	11/10/22 - 04/13/23	-/-	-/-	-/-	-/-	2/21	10/31
N7	NS07	11/10/22 - 04/14/23	-/-	-/-	-/-	-/-	2/21	11/31
N8	NS08	11/09/22 - 04/14/23	-/-	-/-	-/-	-/-	2/22	14/31
N9	NS09	11/09/22 - 04/12/23	-/-	-/-	-/-	-/-	6/22	13/31

For additional visual sightings and acoustic detection information, see the [Right Whale Sighting Advisory System](#) and the [Passive Acoustic Cetacean Map](#).

Report last compiled on November 15, 2023

## **Procedures for Issuing Manuscripts in the Northeast Fisheries Science Center Reference Document (CRD) and the Technical Memorandum (TM) Series**

The mission of NOAA's National Marine Fisheries Service (NMFS) is "stewardship of the nation's ocean resources and their habitat." As the research arm of the NMFS's Greater Atlantic Region, the Northeast Fisheries Science Center (NEFSC) supports the NMFS's mission by "conducting ecosystem-based research and assessments of living marine resources, with a focus on the Northeast Shelf, to promote the recovery and long-term sustainability of these resources and to generate social and economic opportunities and benefits from their use." Results of NEFSC research are largely reported in primary scientific media (e.g., anonymously peer-reviewed scientific journals). However, to assist itself in providing data, information, and advice to its constituents, the NEFSC occasionally releases its results in its own series.

*NOAA Technical Memorandum NMFS-NE* – This series is issued irregularly. The series typically includes: data reports of long-term field or lab studies of important species or habitats; synthesis reports for important species or habitats; annual reports of overall assessment or monitoring programs; manuals describing program-wide surveying or experimental techniques; literature surveys of important species or habitat topics; proceedings and collected papers of scientific meetings; and indexed and/or annotated bibliographies. All issues receive internal scientific review, and most issues receive technical and copy editing.

*Northeast Fisheries Science Center Reference Document* – This series is issued irregularly. The series typically includes: data reports on field and lab studies; progress reports on experiments, monitoring, and assessments; background papers for, collected abstracts of, and/or summary reports of scientific meetings; and simple bibliographies. Issues receive internal scientific review, and most issues receive copy editing.

### **CLEARANCE**

All manuscripts submitted for issuance as CRDs must have cleared the NEFSC's manuscript/abstract/webpage review process. If your manuscript includes material from another work which has been copyrighted, you will need to work with the NEFSC's Editorial Office to arrange for permission to use that material by securing release signatures on the "NEFSC Use-of-Copyrighted-Work Permission Form."

For more information, NEFSC authors should see the NEFSC's online publication policy manual, "Manuscript/Abstract/Webpage Preparation, Review, & Dissemination: NEFSC Author's Guide to Policy, Process, and Procedure."

### **STYLE**

The CRD series is obligated to conform with the style contained in the current edition of the United States Government Printing Office Style Manual; however, that style manual is silent on many

aspects of scientific manuscripts. The CRD series relies more on the CSE Style Manual. Manuscripts should be prepared to conform with both of these style manuals.

The CRD series uses the Integrated Taxonomic Information System, the American Fisheries Society's guides, and the Society for Marine Mammalogy's guide for verifying scientific species names.

For in-text citations, use the name-date system. A special effort should be made to ensure all necessary bibliographic information is included in the list of references cited. Personal communications must include the date, full name, and full mailing address of the contact.

## **PREPARATION**

Once your document has cleared the review process, the Editorial Office will contact you with publication needs—for example, revised text (if necessary) and separate digital figures and tables if they are embedded in the document. Materials may be submitted to the Editorial Office as email attachments or intranet downloads. Text files should be in Microsoft Word, tables may be in Word or Excel, and graphics files may be in a variety of formats (JPG, GIF, Excel, PowerPoint, etc.).

## **PRODUCTION AND DISTRIBUTION**

The Editorial Office will perform a copy edit of the document and may request further revisions. The Editorial Office will develop the inside and outside front covers, the inside and outside back covers, and the title and bibliographic control pages of the document.

Once the CRD is ready, the Editorial Office will contact you to review it and submit corrections or changes before the document is posted online. A number of organizations and individuals in the Northeast Region will be notified by e-mail of the availability of the document online.